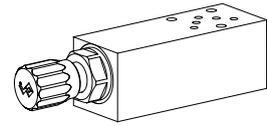


**Pressure sequence valve  
Sandwich construction**

- Pilot operated
- $Q_{max} = 20 \text{ l/min}$
- $p_{max} = 400 \text{ bar}$
- $p_{Nmax} = 350 \text{ bar}$

**NG4-Mini<sup>®</sup>**

**DESCRIPTION**

Pressure sequence valve in sandwich construction. Connection diagram in accordance with Wandfluh standard. The valves are available in two types of adjustment, the others being fixed. A cover is also available for key adjustment, see data sheet 2.0-50. Three pressure stages are available as standard. The steel bodies of the sandwich are phosphate coated.

**FUNCTION**

The pressure sequence valve connects consumers in hydraulic circuits. When the set pressure has been reached, the pilot operation opens to the tank, thereby opening the main spool to the next consumer. The pilot oil flows via an internal drain line to T port. With sandwiches in A and B, return flow passes through a by-pass check valve.

**APPLICATION**

For sequence control of operating sequences, whereby a consumer is switched on when a specific pressure is reached. Sandwich vertical stacking valves are suitable for machine tools, also for mobile equipment of all kinds. Mini-4 pressure sequence valves are recommended whenever hydraulic systems specify small valves at a low weight and size.

**TYPE CODE**

		F	V	<input type="checkbox"/>	S	A04	<input type="checkbox"/>	-	<input type="checkbox"/>	#	<input type="checkbox"/>
Pressure sequence valve											
Pilot operated											
Type of adjustment	Key	<input type="checkbox"/>									
	Control knob	<input type="checkbox"/>									
	Cover	<input type="checkbox"/>									
Sandwich construction											
Mounting interface acc. to Wandfluh standard, NG4-Mini											
Type list / function	in P	<input type="checkbox"/>									
	in A	<input type="checkbox"/>									
	in B	<input type="checkbox"/>									
Pressure range $p_N$	63 bar	<input type="checkbox"/>									
	160 bar	<input type="checkbox"/>									
	350 bar	<input type="checkbox"/>									
Design-Index (Subject to change)											

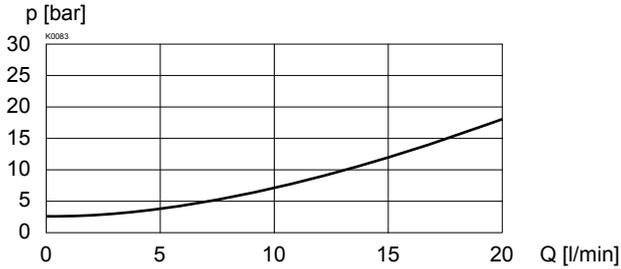
**GENERAL SPECIFICATIONS**

Normal Size	NG4-Mini acc. to Wandfluh standard
Designation	Pressure sequence valve pilot operated
Construction	Sandwich construction
Type of fixture	3 mounting holes for M5 socket head screws or M5 locking screws.
Tightening torques	$M_D = 5,5 \text{ Nm}$ (qual. 8.8) for fixing screws $M_D = 50 \text{ Nm}$ for screw cartridges
Type of connections	Thread- connection plates Rows of flange plates and horizontal stacking system.
Installation position	any
Ambient temperature	$-20...+50 \text{ °C}$
Weight	$m = 1,2 \text{ kg}$

**HYDRAULIC SPECIFICATIONS**

Hydraulic fluid	Mineral oils, other media on request
Max. permissible contamination level	ISO 4406:1999, class 18/16/13 (Recommended filter gauge $\beta_{6...10} \geq 75$ ) see data sheet 1.0-50/2
Viscosity range	$12 \text{ mm}^2/\text{s}...320 \text{ mm}^2/\text{s}$
Hydraulic fluid temp.	$-20...+70 \text{ °C}$
Peak pressure	$p_{max} = 400 \text{ bar}$
Rated pressure ranges	$p_N = 63 \text{ bar}, 160 \text{ bar}, 350 \text{ bar}$
Minimum pressure	see curve
Opening pressure over non-return valve	$p_o = 2,2 \text{ bar}$
Maximum volume flow	$Q_{max} = 20 \text{ l/min}$

Other hydraulic characteristics can be obtained from the data sheets 2.1-546 for cartridge M22x1,5.

**CHARACTERISTICS** oil viscosity  $\nu = 30\text{mm}^2/\text{s}$ 
 $\Delta p = f(Q)$  Pressure-drop flow characteristics curve over non-return valve

**REMARK!**

Detailed performance data and additional hydraulic specifications may be drawn from the data sheets of the corresponding installed pressure relief cartridge.

**SCREW-IN CARTRIDGES INSTALLED**

The following screw-in cartridges are used in the sandwich body:

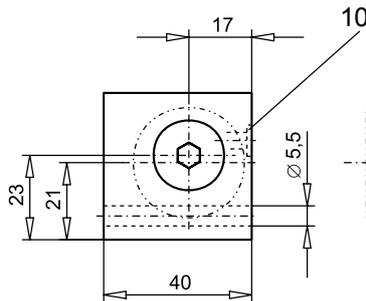
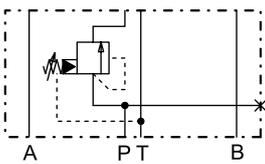
Type	Designation	Data sheet no.
FV.PM22	Pressure sequence valve • pilot operated	2.1-546

**CAUTION!**

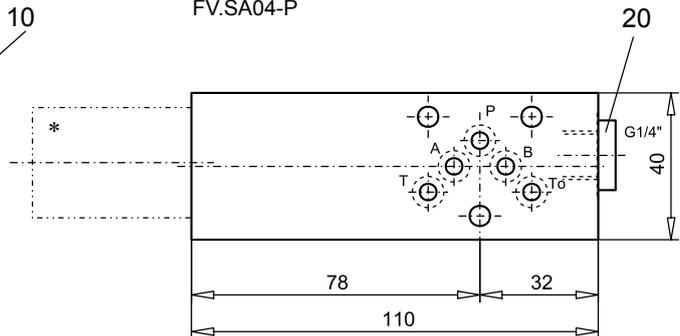
 The performance data especially the „**pressure-flow-characteristic**„ on the data sheets of the screw-in cartridges refer to the screw-in cartridges only. The additional pressure drop of the flange body respectively sandwich body must be taken into consideration.

**TYPE LIST / DIMENSIONS**

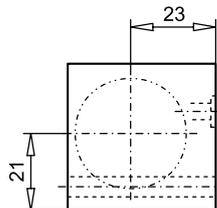
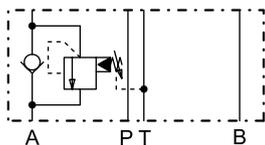
FV.SA04-P



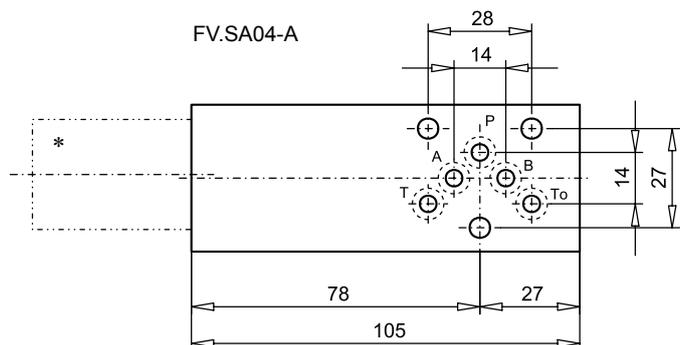
FV.SA04-P



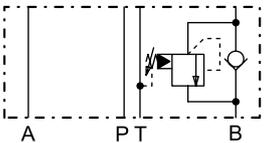
FV.SA04-A



FV.SA04-A



FV.SA04-B


**PARTS LIST**

Position	Article	Description
10	160.2052	O-ring ID 5,28x1,78
20	238.2406	Plug VSTI G1/4"-ED

On sandwich typ B (FV.SA04-B) cartridge is located on B-Side.

\* The exterior dimensions or the cartridges can be obtained from the data sheet 2.1-546.

Technical explanation see data sheet 1.0-100